

Quang Hung Nguyen

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EXPERIENCE

AI Engineer Intern

June 2026 - August 2026

Tekly Studio

USA

- Built an quantitative trading system that collected, cleaned, and engineered 5+ years of historical market data across 1,000+ alternative assets with 12 technical, statistical, and volatility-based features for machine learning research
- Implemented a backtesting engine with validation, transaction costs, and risk management rules, reducing look-ahead bias and producing reproducible performance metrics
- Used Machine Learning to trade alternative assets, achieving a 1.42 Sharpe ratio and 18.6% annualized return during backtesting, outperforming benchmark by 9.8% over the evaluation period.

Undergraduate Course Assistant

September 2024 - May 2026

University of Massachusetts Amherst

Amherst, MA

- Managed course logistics for 200+ students in advanced CS courses (Search Engines, Information Retrieval, Discrete Math), running office sessions for students to enhance understanding on A* Algorithm, RAG, PageRank, LLM fundamentals
- Designed code skeletons and test cases for students search engine assignments (indexing, ranking, text processing).
- Contributed to a Retrieval Augmented Generation (RAG) pipeline combining IR (inverted index, TF-IDF) with LLMs (Qwen, Llama) via Hugging Face, improving relevance by 53% for specific questions about teaching material.

Full-stack Web Developer Intern

June 2025 - August 2025

Van Phuoc Medic

Ho Chi Minh city, VN

- Designed and developed a patient portal using HTML/CSS, JavaScript, SQL, Node.js, deployed on AWS EC2/S3/Route53
- Optimized SQL database schemas and queries to manage patient inquiries, appointment requests, and website content, improving data retrieval performance and backend reliability.
- Containerized with Docker and utilized Jenkins to setup a CI/CD pipeline ,reducing deploy time by 87%.
- Improved overall user experience and maintained the website's hosting domain and registration, resulting in a 90%+ customer satisfaction rate and a 50%+ increase in unique customer/patient visits based on internal statistics.

Software Developer Intern

June 2024 - August 2024

FPT Software

Ho Chi Minh city, VN

- Collaborated with a 15+ member team to develop and maintain company's internal software using C#, XML and .NET
- Designed architecture diagrams for 12 features across 3 systems that accomodate 10000 users combined
- Shipped 4 features (patients' history view, double screen view, screenshot, picture comparison) using C# internal tool
- Spearheaded a Python program that analyzed metadata with 20+ datatype from existing application systems, **reducing execution time and manual QA debug time from 55 minutes to 4 minutes on average.**

PROJECTS

Web Scraping Trading Bot | Python, Selenium, BeautifulSoup, Scrapy, Pandas, PostgreSQL, JWT, Scikit-learn

2024–2025

- Created A Python-based trading bot that earned **50%+ net profit in 13 months**, outperforming the VNIndex benchmark by **40%+ percentage points** using a self-developed algorithm based on live news sentiment and price signals.
- **Scraped 1000 news & search results/day** by orchestrating a headless-Chrome pipeline with Selenium Grid, rotating proxies, and BeautifulSoup/Scrapy parsers, capturing 87% of relevant VNIndex headlines in near real time.
- Maintained zero authentication failures **across 3000 API calls** by using JWT to refreshes tokens and signs trade orders.

Dijkstra Project | Python, Tkinter, Git

2022

- Developed Dijkstra's algorithm to find shortest path on arbitrary maps, with **runtime of 0.6 seconds initialization time**

CERTIFICATES/ AWARDS

AWS Certified Cloud Practitioner | Amazon Web Services (AWS)

2025

Docker Foundations Professional Certificate | Linkedin Learning Certificate of Completion

2025

EDUCATION

University of Massachusetts Amherst

Amherst, MA, USA

Master of Science in Computer Science

Expected 2027

Bachelor of Science in Computer Science and Mathematics (GPA: 3.8/4.0)

2022 - 2026

SKILLS

Languages: Python, JavaScript, TypeScript, C, C++, C#, SQL, Java, HTML, CSS

Frameworks/libraries: Node.js, Express, React, jQuery, Socket.io, .NET, XML, Bootstrap, pandas, NumPy, PyTorch, Flask

Developer Tools: Git, Docker, AWS, VS Code, OpenAI, Jira, Confluence, Postman, Heroku, Jenkins, Google Colab, Claude Code